

4241-198-CON-RCE

RECEIVED
CENTRAL FAX CENTER

NOV 20 2006

Section II (Remarks)**Amendment of Claims 1, 4, 7, 12, 14-17, 25, 27, 30, 31, 33, 36, 39 and 40**

Claims 1, 4, 7, 12, 14-17, 25, 27, 30, 31, 33, 36, 39 and 40 have been amended herein, to further delineate same as relating to specific aspects of the invention. No new matter (35 USC 132) has been added. The substance of such amendments is fully consistent with and supported by the disclosure of the as-filed application, including, *inter alia*, the disclosure at page 13, lines 11-20; page 17, lines 19-20; page 20, lines 6-8; page 22, lines 9-22; page 23, lines 3-4; and Figures 1 and 4-6.

Various of the claims have been amended to specify spectral regimes recited therein.

For example, claim 25 has been amended so that such claim recites, *inter alia*, "an LED energizable to emit radiation with an emission maximum in a spectral range of the blue to ultraviolet spectrum, and a luminophoric medium arranged to be impinged by radiation emitted from the LED." Such amendment is consistent with the disclosure at page 17, lines 19-20 ("[I]n one embodiment, LED 13 comprises a leaded, gallium nitride based LED which exhibits blue light emission with an emission maximum at approximately 450 nm") and page 20, lines 6-7 ("emit in the spectral range covering the blue and ultraviolet"). Claims 31 and 39 have been correspondingly amended.

Addition of New Claims 42-69

New claims 42-69 have been added herein to claim specific aspects of the invention.

The newly added claims 42-69 also are fully consistent with and supported by the original disclosure of the application, including, *inter alia*, the disclosure at page 13, lines 11-20; page 17, lines 19-20; page 20, lines 6-8; page 22, lines 9-22; page 23, lines 3-4; and Figures 1 and 4-6.

4241-198-CON-RCE

Various of the newly added claims specify spectral regimes of emission from the luminophoric material, e.g., claim 43 recites a luminophoric medium comprising a material responsively emitting radiation in at least the yellow spectrum, and claim 60 recites phosphor material as the luminophoric medium that produces emitted radiation including emission in at least the red, yellow and green spectrums.

No new matter (35 USC §132) has been introduced.

Response to Species Election Requirement Imposed in August 21, 2006 Office Action

In the August 21, 2006 Office Action, the examiner imposed a species election requirement between the following identified species:

- Fig. 1-3: a LED unit (hereafter "Species 1");
- Fig. 4: a display panel (hereafter "Species 2");
- Fig. 5: an array LED (hereafter "Species 3").

In response, applicants hereby elect **Species 2 (a display panel)**.

Pursuant to the examiner's requirement for a listing of all claims readable on the elected species, such claims are **claims 31-38 and 43-69**.

Fees Payable for Added Claims 42-69

By the addition of claims 42-67 herein, 26 total added claims have been introduced, beyond the number for which payment was previously made, including four independent claims beyond the number of independent claims for which payment was earlier made. Accordingly, an added claims fee of \$2100 is due and payable (4 independent claims x \$200/claim = \$800, plus 26 total claims x \$50/claim = \$1300).

4241-198-CON-RCE

Such payment is enclosed, in the form of a Credit Card Authorization Form, directing charging of such amount of \$1300 together with an extension of time petition fee (37 CFR 1.17 (a)(2)) of \$450, for a total fee payable of \$1750, to the credit card identified in such document.

Authorization also is hereby given to charge any deficiency in fees or amounts properly payable for the entry of this response, to Deposit Account No. 08-3284 of Intellectual Property/Technology Law.

Petition Under 37 CFR 1.136 For Two Months Extension of Time

Petition hereby is made for a two (2) months extension of time of the term for response to the August 21, 2006 Office Action, extending such term to November 21, 2006.

Enclosed, in payment of the two months extension of time fee of \$450 specified in 37 CFR 1.17(a)(2), is a Credit Card Authorization Form directing charging of such amount, together with an added claims fee of \$1450, for a total fee payable of \$1750, to the credit card identified in such document.

Authorization also is hereby given to charge any deficiency in fees or amounts properly payable for the entry of this response, to Deposit Account No. 08-3284 of Intellectual Property/Technology Law.

Commentary on Statements in Parent Application Prosecution Relating to Primary Radiation and Luminophoric Medium

A third party has alleged that remarks included in an Amendment during the prosecution of parent patent application Serial No. 08/621,937 may limit the claim term "luminophoric medium" to refer only to mediums that downconvert ultraviolet light to red, green and blue wavelengths to generate white light. The remarks at issue were made by Applicants in distinguishing the Tadatsu reference, Japanese Patent Application Publication H05-152609, an English translation of which is enclosed for ease of reference in Appendix A hereof, together with an appertaining Form PTO/SB/08A (the Tadatsu reference is of record in the present application as Reference AL, having been cited in the Information Disclosure Statement filed

4241-198-CON-RCE

July 18, 2003 in this application). Because the third party mischaracterizes such remarks, Applicants submit the subject remarks to reiterate, and clarify, any such mischaracterization of Applicants' remarks concerning Tadatsu.

During the prosecution of parent patent application Serial No. 08/621,937, Applicants argued that the Tadatsu reference merely disclosed down-converting a violet/ultraviolet LED in order to obtain a mono-color (blue) output at a single wavelength. Consistent with this argument, Applicants amended the claims to expressly recite the deliberate mixing of different color wavelengths to produce a polychromatic output. Applicants explained that Tadatsu does not teach blending different wavelengths to obtain polychromatic white light, but instead is directed to providing a mono-color output. In particular, Applicants stressed that embodiments of the invention involved blending different wavelengths to produce a polychromatic output in contrast to the desired mono-chromatic output of Tadatsu.

Applicants' remarks also specifically referred to mixing violet and red to produce a purple output and mixing violet, red and green to produce white light, and argued that Tadatsu likewise does not disclose or suggest such embodiments. Moreover, the claims pending at the time of the Amendment included, for example, a claim to down-converting a primary radiation to at least two distinct and separable regions of red and/or green and/or blue light, with said at least two regions of red and/or green and/or blue light mixing to produce a different colored output. Applicant's remarks thus were clearly comparing and contrasting Tadatsu to particular embodiments of the Applicants' invention in order to make the point that Tadatsu did not disclose the mixing of different colors of light to produce a polychromatic output.

The present specification expressly teaches that blue as well as ultraviolet emission may be used as the primary emission in order to obtain a polychromatic white light output. (*See, e.g.*, Abstract; page 13, line 18 to page 14, line 2; page 16, lines 9-13; page 16, lines 15-21; page 20, line 13; and page 24, lines 14-17). The present specification also expressly describes an embodiment in which primary blue emission is coupled with red and green secondary emissions to generate white light. (*See, e.g.*, page 16, lines 9-13). The specification also expressly states that, in other embodiments, the output may be colors other than white and may have either narrow or broad spectral distribution. (Page 14, lines 5-9 and page 25, lines 9-12). Thus, the

NOV 20 2006

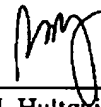
4241-198-CON-RCE

specification expressly discloses that embodiments of the invention do not require an ultraviolet primary source and/or a medium that generates all three of red, green and blue wavelengths. Accordingly, the reference to a "luminophoric medium" in various of the pending claims should not be interpreted as requiring an ultraviolet LED (or other primary radiation source) and/or as requiring downconverting to all three of red, green and blue wavelengths, and Applicants disclaim any statement made during the prosecution of the parent application to the extent such statement might somehow be interpreted as so limiting the claims pending herein.

CONCLUSION

It is requested that the prosecution of this application proceed, consistent with the foregoing election of species, and the amendment/addition of claims herein.

Respectfully submitted,



Steven J. Hultquist
Reg. No. 28,021
Attorney for Applicants

INTELLECTUAL PROPERTY/
TECHNOLOGY LAW
Phone: (919) 419-9350
Fax: (919) 419-9354
Attorney File No.: 4241-198-CON-RCE

Enclosures:
Credit Card Authorization Form
Form PTO/SB/08A
English Translation of Japanese Patent Application Publication H05-152609

The USPTO is hereby authorized to charge any deficiency or credit any overpayment of fees properly payable for this document to Deposit Account No. 08-3284